ESM 481

FUTURES TRADING
OF
LIVE BEEF CATTLE
(HEDGING)

by

Clarence C. Bowen

Cooperative Extension Service
Department of Agricultural Economics & Rural Sociology
The Ohio State University

September, 1972

LIVE BEEF CATTLE FUTURES

Hedging is a protective procedure designed to minimize commodity marketing and processing losses that are due to adverse price fluctuations.

The term hedging, as it applies to any commodity which has the benefit of futures trading, means the taking of such action that will result in offsetting possible losses in transactions previously made or about to be entered upon. The futures can be used in one of two ways:

(1) the sale of one or more futures contracts to eliminate or lessen the possible decline in value of ownership of an approximately equal amount of the actual commodity due to a price decrease. This is called a "short" hedge and used by producers of livestock.

(2) the purchase of one or more futures contracts to eliminate or lessen loss from the possible advance in the value of the actual commodity due to a price increase not yet owned, and needed to fill processing or other commitments at set prices. This is a "long" hedge and used by slaughtering plants.

Futures trading in beef cattle began on November 30, 1964 at the Chicago Mercantile Exchange. Basically, the rules and regulations for trading in live beef cattle futures contracts as published by the Chicago Mercantile Exchange are as follows:

- A trading unit is 40,000 pounds of Choice Grade or better live steers.
- A par delivery unit is 40,000 pounds.
  - (a) Steers averaging within the weight range of 1,050 to 1,150 pounds with an estimated yield of 61%.
  - (b) Steers averaging within the weight range of 1,151 to 1,250 pounds with an estimated yield of 62%.
- Minimum initial margin of $400 per contract* (40 steers of 40,000 pounds).

---

*Margin and commission are subject to change.

- Non-member round turn (buying and selling) commission $40 per contract.*
- Grading and yield estimates made by U.S.D.A. graders.
- Delivered at Chicago or Omaha. Omaha deliveries made with an allowance of 75¢ per cwt.
- Trading shall terminate on the 20th calendar day of the contract month--deliveries shall be permitted on each Monday, Tuesday, Wednesday, and Thursday of the contract month which follow the sixth calendar day of the contract month.
- Contracts to be delivered in April, June, August, October, and December, February, April and June.
- Maximum price change per day $1.50 per cwt.

Additional information may be obtained by contacting a local brokerage firm which is represented on the Exchange.

Careful production cost calculations need to be made as you can lock in a loss as well as a profit in futures selling.

Advantages of Futures Trading (Hedging)

1. Assure producer a certain price for a given month.
2. Lock in a profit given production cost.
3. Should make credit more easy to obtain.
4. Tends to level out production and prices.

Disadvantages of Futures Trading (Hedging)

1. Will not assure the highest price.
2. May not give the greatest net profit.
3. Must pay service fee.

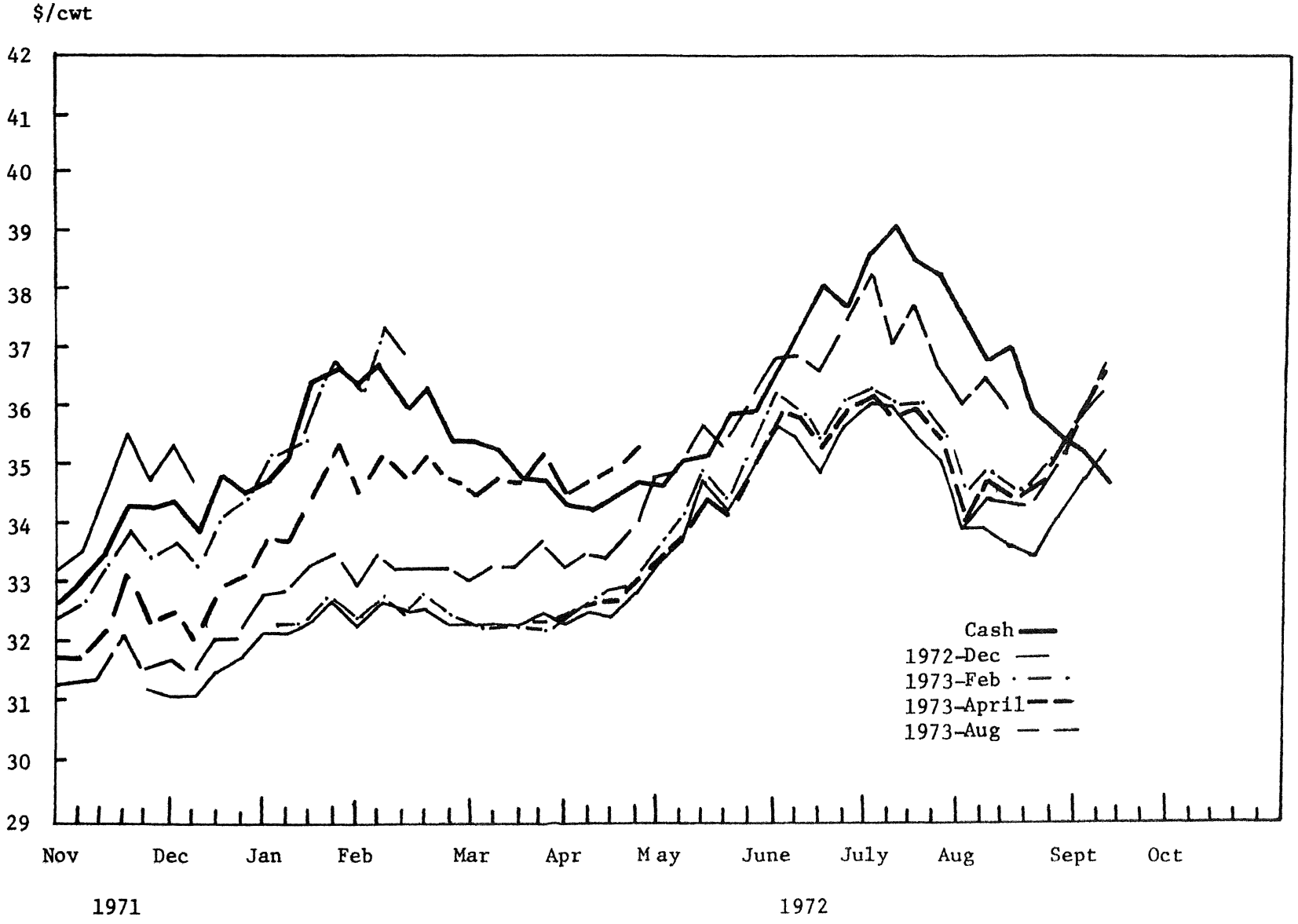
See examples on the following pages as to possible results of hedging.

---

*Margin and commission are subject to change.

LIVE CATTLE FUTURES BY WEEKS

Cash Price--Omaha (Choice)



Fixing Sales Price Against A Price Change

	Price per cwt.	Return per animal	
		Cash Mkt.	Future Mkt.
October 1 buys 500 lb. feeders @	$39.75	$198.75	
Puts on 500 lb. gain	26.00	130.00	
Total cost at 1,000 lb. selling wt.		328.75	
Break even selling price	32.88		
October 1 sells June futures for 1,000 lb. choice steers	36.00		360.00
June 15 sells 1,000 lb. steers at local market	35.00	350.00	
June 15 buys back contract	35.00		-350.00
Gain or loss per head		21.25	10.00
Gain or loss on 1 contract 40,000 lbs.		850.00	400.00
Less costs comm. $40.00 + $12.00 int.			-52.00
Net gain or loss on contract			348.00
Net gain on feeding operation	(850.00	+ 348.00) =	$1,198.00

The above table is to be considered as an illustration to compare the results of selling fed cattle on the futures market (hedging) compared to selling them on a "cash" basis to a local market or packer.

The "break even" price of $32.88 per cwt. means he must sell his finished cattle for that price to pay all costs under normal circumstances. In this case the day he buys his feeders he sells them on the June futures market for $36.00 per cwt. or $360.00 for a 1,000 lb. steer. On June 15 he sells his steers locally for $35.00 per cwt. and buys a futures contract for $35.00 per cwt. This transaction relieves him of all obligations of delivery. He gains $10.00 per head or $400.00 for 40,000 lbs. or 40 steers weighing 1,000 lbs. each. After paying commission costs and interest on the margin of $52.00 he had a net gain of $348.00.

If he had not sold them on the futures market he would have had a net gain of $850.00. Adding to the $850.00, the gain of $348.00 he received through the futures market, he had a net profit of $1,198.00 on the total operation.

	Price per cwt.	Return per animal	
		Cash Mkt.	Future Mkt.
October 1 buys 500 lb. feeders @	$39.75	$198.75	
Puts on 500 lb. gain	26.00	130.00	
Total cost at 1,000 lb. selling wt.		328.75	
Break even selling price	32.88		
October 1 sells June futures for 1,000 lb. choice steers	36.00		360.00
June 15 sells 1,000 lb. steers at local market	37.00	370.00	
June 15 buys back contract	37.00		-370.00
Gain or loss per head		41.25	-10.00
Gain or loss on 1 contract 40,000 lbs.		1,650.00	-400.00
Less costs comm. $40.00 + $12.00 int.			-52.00
Net gain or loss on contract			-452.00
Net gain on feeding operation	(1,650.00	- 452.00) =	$1,198.00

The preceding table is similar to the one previous, as the "break even" selling price is $32.88 per cwt. Also in this case he sells them on the June futures market for $36.00 per cwt. Under normal conditions he would be insuring himself a gross profit of $3.12 per hundred which is $31.20 per 1,000 lb. animal (not shown in table). This amounts to $1,248.00 gross profit for 40 steers weighing 1,000 lbs. each or 1 futures contract.

However, when the June market period arrives the cash price is $37.00 per cwt. instead of the $36.00 per hundred he sold them at on the futures market. He sells them locally for $37.00 per cwt. and buys a contract on the futures market for the same price thus eliminating him of making a costly delivery to a distant market. His futures or hedging has resulted in him receiving a total of $452.00 less in his feeding operation than if he had not contracted.

But it must be understood he had a net return of $1,198.00 on 40 steers each weighing 1,000 lbs. or 1 contract.

It should be understood the previous examples are for illustrative purpose. Actual conditions will vary to some extent. The following page is for your use in working out a hedging problem using your own situation and data.

My Example of Fixing Sales Price Against A Price Change

	Price per cwt.	Return per animal	
		Cash Mkt.	Future Mkt.
Date _____ buys ____ lb. feeders @	$_____	$_____	
Puts on ____ lb. gain	_____	_____	
Total cost at _____ lb. selling wt.		_____	
Break even selling price	_____		
Date _____ sells _____ futures for _____ lb. _____ steers	_____		_____
Date _____ sells _____ lb. steers at local market	_____	_____	
Date _____ buys back contract	_____		_____
Gain or loss per head		_____	_____
Gain or loss on _____		_____	_____
Less costs _____			_____
Net gain or loss on contract			_____
Net gain on feeding operation			_____